BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 National Diploma in Civil Engineering Pearson BTEC International Level 3 National Extended Diploma in Civil Engineering
Unit number and title	**Unit 32: Highway Construction and Maintenance in Civil Engineering**
Learning aim(s) (For NQF only)	**C**: Examine maintenance procedures for highways
Assignment title	Maintenance of highways
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	You have been employed as a trainee Civil Engineer in the design office of a large consulting engineers practise who specialise in the design of infrastructure projects. The same local authority that appointed your firm to provide route and construction details for a by-pass wants you firm to advise on highway maintenance issues. The local authority has had a long-term plan to build a by-pass around the town to avoid motorway bound traffic from going through the town. Your company has been appointed as the consultancy to produce proposals and plans that examine the maintenance procedures for highways.
Task 1	The local authority has listed below its main defects in existing highway stock. • Potholes • Rutting • Open Joints • Cracking • Crazing • Standing water • Fatting Make a proposal and plan for the local authority for each of the above. Justify the effectiveness of your proposal to resolve the defects. Also explain maintenance processes to resolve the listed defects. The local authority also want an assessment of the proposed maintenance requirements and processes that they can adapt to solve their problems. The local authority has to maintain a range of road classifications such as Motorways, National highways, Rural roads and Local roads and wants the proposals and plans to explain the reasons for different types of maintenance that are required on these roads.
Checklist of evidence required	Well referenced proposals and plans with images of defects, inclusive of clear conclusions, relating to maintenance of the

	different classification of roads. This should be a word-processed document with appropriate formatting and page numbers, and an easy to read font.
Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria you must show that you are able to:
32/C.D3	Justify the effectiveness of maintenance processes to resolve highway defects, with reference to own proposals and plans
32/C.M3	Assess maintenance requirements and processes to resolve given highway defects
32/C.P6	Explain maintenance processes to resolve given highway defects
32/C.P5	Explain the reasons for different types of maintenance that are required for highways
Sources of information to support you with this Assignment	Martin Rogers, Highway Engineering, 2nd Edition (Blackwell 2008) ISBN 9781405163583 John Watson–Highway Construction & Maintenance, (Longman) ISBN 0582234123 C A O'Flaherty, Highways The location, Design, Construction & Maintenance of Pavements, 4th Edition (Butterworth) ISBN 9780750650908 www.ice.org.uk
Other assessment materials attached to this Assignment Brief	*Case studies* Trade Literature